

## Reuben H. Fleet Science Center at Balboa Park Waste Management Assessment - February 27, 2008

**Description:** In February 2008, the California Integrated Waste Management Board, the City of San Diego, and the Ruben H. Fleet Science Center at Balboa Park teamed up to assess the waste reduction and recycling opportunities at the Science Center.

The Reuben H. Fleet Science Center at Balboa Park in San Diego, California is open year-round, with the number of visitors peaking at more than 2,000 per day during the summer season. Admission to Balboa Park is free, but there is a cost to enter the Science Center. The Science Center attracts preschool and school age children, as well as their adult supervisors and parents.

The Science Center has exhibits covering many different topics including energy and water conservation. In addition to the exhibits, there are multiple classrooms for science labs and activities for schools attending on field trips and other organized group visits, two additional group meeting/birthday rooms available for use by staff and private groups, a small café, a souvenir shop, and a 320-seat IMAX theatre.

Staff offices are located throughout the Science Center and an equipment/display repair shop and a mailroom/warehouse also are on site.

EDCO is the hauler for both waste and recycling at the Science Center.

**Existing Efforts:** Each group of staff offices has small recycling containers at individual desks and large containers in easily accessible common areas and copy rooms.

Facilities Supervisor John Taylor and the rest of the Science Center staff have taken many initiatives to integrate recycling at the facility. Other environmentally friendly steps have been implemented to reduce water and energy consumption.

### Recycling:

- Blue recycling containers for commingled recycling are in every office and classroom. The teachers help in educating the students on how and why to use the containers. Blue recycling containers are also used for beverage containers in the visitor areas, as well as outside. Water bottles are the only beverage/food allowed in exhibits and theatre.
- Grayson Boehm Lecture Hall is available to the public for private events. The Science Center has special events coordinators, and recycling containers are available for events.
- Other materials being recycled include: ticket stubs from theatre patrons, old metal tables/ stands, outdated brochures, and cardboard collected throughout the building (café and dry storage area, souvenir store, offices, mailroom, etc.). Cardboard is broken down when collected. There is not a baler on-site.
- Custodial staff separates trash from recyclables.

#### Energy Conservation:

- Solar panels have been installed on the roof.
- A majority of the rooms have light sensor switches so when they are not being used the lights will turn off automatically.
- Dry storage area for the café uses limited lighting.

#### Water Conservation:

- 10 waterless urinals; each waterless urinal saves 45,000 gallons of water per year.
- All manual faucets are being replaced with sensor faucets.

#### Reuse:

- Souvenir store has plastic bags for smaller items sold and brown bags for larger items. Reusable bags are sold in the store.
- Science Center staff reuse materials whenever possible. Examples include the marketing office reuse of old signs and foam board; repair shop repair and reuse of exhibit materials; packaging material (popcorn filler, paper, boxes) reused in the mailroom or used for various children projects; and pallets are usually returned to the sender.

#### Reduce:

- Automatic, hands-free paper towel dispensers installed in restrooms.

#### Recycle Content:

- The Science Center has a policy in place for purchasing recycled-content products and is currently purchasing recycled-content paper (35 percent recycled content) from Office Depot. Only green cleaning products are used at the Science Center.

### **Waste Reduction Opportunities:**

#### Recycling:

- Additional recycling containers throughout the visitor areas. Recommend trying to be consistent with a 1:1 ratio – trash: recycling. Signage (paper only or bottles, cans, glass, etc.) on recycling containers needs to be more visible. Place all shredded paper in clear plastic bags to maximize recoverable paper for recycling.
- Café – in the food prep area, begin recycling large tin cans along with plastic bottles where the neck is narrower than the bottom. Minimal food contamination in recyclables is accepted.
- Encourage employees to recycle receipts from entry fees, souvenir shop.
- Coordinate with the Special Events Department to add an educational component for caterers and for special events so that they are aware of the center's recycling programs. A brochure could be developed or include recycling information as part of the application process.
- In the repair shop area, empty aerosol cans and paint cans can be recycled as normal metal material. Currently these materials are sent out as household hazardous waste.
- Promote consistency in the center's recycling program and work with other facilities in Balboa Park to launch successful waste-reduction programs.
- The California Integrated Waste Management Board's Waste Reduction Awards Program (WRAP) recognizes businesses such as the Science Center that have

implemented recycling programs. For more information:  
<http://www.ciwmb.ca.gov/WRAP/>

Energy Conservation:

- Reset the sensors on the paper towel dispensers so less material is dispensed.

Reuse:

- Switch to only reusable bags at the souvenir shop and encourage visitors to use only reusable bags.
- Institute a policy to have employees bring their own cup and eliminate polystyrene cups. This could be accomplished with a kickoff for expanded recycling programs. Offer your employees “green” recycled-content cups for them to use at work.

Reduce:

- Encourage purchasing souvenirs with less packaging material.
- Reset all printers to default to double-sided printing. Promote double-sided copies (see <http://www.ciwmb.ca.gov/BizWaste/Posters/> for examples).
- Replace the paper towel dispensers with electric hand dryers in some restrooms.
- Café – purchase condiments in bulk rather than individual packets.
- Café – give napkins to customers at time of purchase.

Recycle Content:

- Encourage purchasing souvenirs with more recycled content.

Outreach:

- Possible future composting exhibit.
- Utilize bulletin boards near classrooms to encourage and recognize employee recycling and conservation efforts.
- Arrange a tour for management/staff to a landfill or recycling facility, etc.
- Include more recycling/composting and landfill gas capture systems as part of your educational component.

**Recognition & Publicity:** The Science Center recently received a Recycler of the Year recognition in the City of San Diego’s 2008 Waste Reduction and Recycling Awards. The Science Center also received a runner-up recognition at the 2008 San Diego Excellence in Energy Awards hosted by the California Center for Sustainable Energy.

**Continued Efforts:** The current program is going well and the Board of Directors and staff will continue to improve the efforts at the Science Center.

Photos below showcase some of the observations.



Left – Here in the Science Center's café, you can see there is no blue bin. This was a concern because space is an issue here. We recommended, for the short term, to add a slim version of a blue bin between the wall and the trash bin. Long term would be to invest in a dual container bin holder -- similar to the one pictured, but it would have two receptacles, one for trash and one for recyclables. It is important to preserve the aesthetics in the café area.



Clockwise starting above – Two outside receptacles paired together. The trend continues inside in the next photo. A majority, if not all, of the receptacles in the public areas were paired together. At right, an example of signage in the restrooms, educating caregivers to keep the restrooms sanitary and odor-free.





Left – Two of the many educational signs throughout the Science Center. All parts of the facility are educational - employee and public areas alike - even in the bathroom! (Far left – waterless urinal education)



Left – In the lower level/basement of the Fleet Science Center, these rolling containers are for custodial staff use as they perform their duties throughout the building.



Above – On the right is an alternative “blue bin” for computer paper. On the left is a similar bin for electronics with a receptacle for paper and other recyclables next to it. Remember to try to stay consistent.

## Participants:

1. John Taylor, Reuben H. Fleet Science Center – Facilities Supervisor (619) 895-5646
2. John Theroux, City of San Diego - Recycling Specialist (858) 573-1284
3. Stephen Heverly, City of San Diego – Waste Reduction Program Intern (858) 492-5074
4. Melissa Vargas, California Integrated Waste Management Board – Integrated Waste Management Specialist (916) 341-6271

5. Dorothy Woody, California Integrated Waste Management Board - Integrated Waste Management Specialist (916) 341-6257